COELOPHORA VERANIOIDES BLACKBURN: A VARIETY OF COELOPHORA INAEQUALIS (F.) (COLEOPTERA: COCCINELLIDAE)

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Abstract

Crosses between the coccinellids Coelophora veranioides Blackburn and Coelophora imequalis (F.) produce fertile progeny of both colour patterns. C. veranioides should be considered as a variety of C. inaequalis. Coelophora ripponi, Coelophora mastersi and Coccinella religiosa should also be treated as varieties of C. inaequalis.

In recent studies of native aphid populations, the author has collected a number of aphid predators, including various coccinellids. The latter included specimens identified by Dr E. B. Britton as Coelophora inaequalis (F.) and Coelophora veranioides Blackburn. Subsequently a pair was taken in copula (Mosman, N.S.W., 2 Feb. 1975); the male corresponded to the C. inaequalis elytral pattern (Fig. 1) and the female to the C. veranioides pattern (Fig. 2). Both elytral patterns were present among the progeny of this female. A number of controlled crosses were carried out between the two forms and all resulted in the production of fertile progeny.







FIGS 1-2. (1) Coelophora inaequalis; (2) C. inaequalis var. veranioides.

C veranioides can therefore no longer be considered as a separate species. C inaequalis is already known to be a very variable species, and a number of varieties have been named. Specimens agreeing with the description of C. veranioides could be distinguished as C. inaequalis var. veranioides. As mentioned in the original description (Blackburn, 1894), the longitudinal stripe on each elytron (Fig. 2) is sometimes broken in the middle. No characteristics were found for distinguishing between C. inaequalis var. veranioides and standard C inaequalis in the larval and pupal stages.

Britton (personal communication) considers that Coelophora ripponi Crotch, 1874 is the same as C. inaequalis var. veranioides, differing only in

having the longitudinal stripe slightly thicker, and in addition, that Coccinella religiosa Lea, 1901 is a synonym of Coelophora inaequalis var. novemmaculata (F.). Timberlake (1922) reared an all-black variety of C. inaequalis; this suggests that the black species C. mastersi Blackburn, 1892 may also be a synonym of C. inaequalis.

Coelophora inaequalis is widely distributed in Australia and Asia, and has been imported into Hawaii. Specimens in the Australian Museum and Australian National Insect Collection indicate that C. inaequalis var. veranioides occurs throughout the coast and mountain regions of eastern Australia.

The inheritance of the elytral pattern of *C. inaequalis* var. *veranioides* is described elsewhere (Hales, 1976).

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References

Blackburn, T., 1892. Further notes on Australian Coleoptera, with descriptions of new genera and species. XII. Trans. R. Soc. S. Aust. 12: 207-261.

Blackburn, T., 1894. Further notes on Australian Coleoptera, with descriptions of new genera and species. XVI. Trans. R. Soc. S. Aust. 18: 200-240.

Crotch, G. R., 1874. A revision of the coleopterous family Coccinellidae. E. W. Janson, London.

Hales, D. F., 1976. Inheritance of striped elytral pattern in Coelophora inaequalis (F.) (Coleoptera: Coccinellidae). Aust. J. Zool. 24: 273-276.

Lea, A.M., 1901. New species of Australian Coleoptera. Proc. Linn. Soc. N.S. W. 26: 488-512. Timberlake, P. H., 1922. Observations on the phenomena of heredity in the ladybeetle, Coelophora inaequalis (Fabricius). Proc. Hawaii. ent. Soc. 5: 121-133.

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This bibliography lists, in an accumulative manner, all literature published since the beginning of 1972 that directly concerns Australian insects. It attempts to fulfil the need for a comprehensive list of current Australian entomological literature. If you have published anything likely to be overlooked I would be greatful for reprints or details of such publications. BRYAN, R. P.

1976. The effect of the dung beetle, Onthophagus gazella, on the ecology of the infective larvae of gastrointestinal nematodes of cattle. Aust. J. agric. Res. 27(4): 567-574, text-figs 1-3.

BUCHANAN, G. A.

1977. The seasonal abundance and control of light brown apple moth, Epiphyas post-vittana (Walker) (Lepidoptera: Tortricidae), on grapevines in Victoria. Aust. J. agric. Res. 28(1): 125-132, tables 1-3, text-figs 1-5.

BURNS, G. G.

1976. An explanation of the entomological terms used by Mr J. H. Carter in his key to the genus Stigmodera (Family Buprestidae). Victorian Ent. 6(2): 17-20.